

Response To Remand To The Examiner

1. The Remand of 06/12/2009 duly notes that the Examiner's Answer of May 21, 2009 is deficient according to the standards established by MPEP, section 1207.02(A)(9). Accordingly, herewith is submitted a complete and accurate *Grounds of Rejection and Response to Arguments* section:

(9) Grounds of Rejection Applicable to the Appealed Claims

The following ground(s) of rejection are applicable to the appealed claims:

Note: As a result of the amendment as indicated above in item 4, the rejections are maintained to address the amendment by the appellant.

A. Claims Rejections – 35 USC § 101

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2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32

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F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. *O'Reilly*, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

The Examiner notes for claims 17 - 18 that "includes control software for install on an electronic device" does not specify how the instructions are (a) associated with the medium, or (b) the nature of instructions. Data structures not claimed as embodied (or encoded with or embedded with) in a computer readable medium are descriptive material per se, and are not statutory, *Warmerdam*, 22 F.3d at 1361, 31, USPQ2d at 1760. Similarly, computer programs claimed as computer listings, instructions, or codes are just the descriptions, expressions, of the program are not "physical things". They have neither computer components nor statutory processes, as they are not "acts" being performed. In contrast, a claimed "...computer readable medium encoded with a computer program..." is a computer element which defines structural and function interrelationships between the computer program and the rest of the computer, and is statutory, *Lowery*, 32 F.3d at 1583-84, 32 USPQ2d at 1035, *Interim Guidelines, Annex IV (Section a)*.

B. Claims Rejections – 35 USC § 102

As per **claims 1, 5, and 18**, Hosono discloses a method and electronic device of encoding a video picture, the method comprising:

for a segment of the video picture determining if the segment can be reconstructed from at least another video picture based on motion-compensated interpolation applied to the other video picture (Fig 9, Col 8 Ln 30-40; the figure shows predictive images that would be used as a reference frame to serve as the other video picture such as I or P3);

if the segment cannot be reconstructed, encoding the segment (Col 8 Ln 30-40; since the segment can not be reconstructed a prediction difference was created and encoded to be transmitted to the decoder) and

otherwise skipping the segment (Col 5 Ln 54-59; the disclosure explains a process of detecting a motion vector equal to zero and therefore skipping the macroblock).

As per **claims 2, 6, 10, and 14**, Hosono discloses the method of claim 1, 5, 9, and 13 wherein the segment comprises a macroblock (Col 5 Ln 54-59; the skip-macroblock is a process that is focused on manipulating the macroblocks during an encoding and decoding process).

As per **claim 3, 7, 11, and 15**, Hosono discloses the method of claim 1, 5, 9, and 13 wherein the encoding comprises using a coding scheme compliant with one of ISO and ITU video compression standards (Col 2 Ln 30-39).

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As per **claim 4, 8, 20, and 21**, Hosono discloses the method of claim 3 and 7 wherein the coding scheme complies with MPEG-2 and wherein the determining comprises:

decoding an encoded B-picture (Fig 9, B; Col 4 Ln 32-39 and Col 5 Ln 54-56; the prior art discloses the decoding macroblocks especially B-picture);

generating a further picture using motion-compensated interpolation applied to the other video picture (Col 8 Ln 30-40; the prior art discloses motion-compensated interpolation);

determining a difference per macroblock between the decoded B-picture and the further picture (Col 8 Ln 30-40; the prior art discloses calculating a difference of the macroblocks especially B-picture); and

evaluating the difference under control of a consistency measure of motion vectors associated with the further picture (Col 5 Ln 54-59 and Col 8 Ln 30-40; the prior art discloses calculating motion vectors).

As per **claims 9, 13, 17, and 19** Hosono discloses a method of decoding an encoded video picture (Fig 9, 49 and 50), the method comprising:

determining if a segment of the picture is missing (Col 4 Ln 32-39 and Col 5 Ln 54-59; the prior art clearly discloses the skipping macroblock condition and teaching the condition where decoding is used and would detect a skipping macroblock by examining the macroblocks); and

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if the segment is missing, reconstructing the segment from motion-compensated interpolation applied to at least another video picture (Col 8 Ln 30-40; the prior art disclose using motion compensation on B-pictures).

As per **claims 12 and 16**, Hosono discloses the method of claim 10 and 14, wherein:

decoding the picture comprises using an MPEG-2 skipped-macroblock condition (Col 4 Ln 32-39 and Col 5 Ln 54-62); and

writing data, generated by the motion-compensated interpolation to reconstruct the macroblock, over further data generated under the skipped-macroblock condition (Col 8 Ln 30-40).

(10) Response to Argument

The Examiner's response to the arguments of the brief concerning the art rejection of claims 1-21 are as follows:

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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